REMARKS

Claims 1, 3-5, 7, 8, 11, 12, 14, 15, 17, 18, 21, 22, 24, 25, 27 and 38-41 are currently pending in this application. It is gratefully acknowledged that the Examiner has found allowable subject matter in Claim 4. Claims 5, 7, 18, 21, 22, 24, 25 and 27 are rejected under 35 U.S.C. §101 as not falling within one of the four statutory categories of invention. Claims 1, 3-5, 7, 8, 11, 12, 14, 15, 17, 18, 21, 22, 24, 25, 27 and 38-41 are rejected under 35 U.S.C. §103(a) as being unpatentable over the Admitted Prior Art (APA) in view of Heikkinen et al. (WO 95/32558) and further in view of Lamoureux et al. (U.S. 6,330,458).

Regarding the rejections of independent Claims 5 and 18 under 35 U.S.C. §101, the Examiner alleges that the claims do not fall within one of the four statutory categories of invention. Applicants respectfully disagree.

Claim 5 recites, "A transmission method in **a CDMA (Code Division Multiple Access) mobile communication system** for transmitting a modulated radio signal using **a plurality of antennas**, the transmission method comprising the steps of: amplifying the modulated radio signal in a transmission period; generating a switching control signal; and switching the amplified radio signal between **a first and a second antenna** in response to the switching control signal, the switching control signal generated such that the switching occurs only in a non-transmission period of a last time slot within **a sub-frame**, **the sub-frame includes a plurality of time slots**, each time slot includes a transmission period followed by a non-transmission period, wherein the non-transmission period of a last time slot is a non-transmission period intervening between sub-frames." (Emphasis added.)

Claim 18 recites, "A transmission method in **a CDMA (Code Division Multiple Access) mobile communication system** for transmitting a modulated radio signal using **a plurality of antennas**, the transmission method comprising the steps of: amplifying the modulated radio signal in a transmission period; generating a switching control signal; and switching the

amplified radio signal between **a first and a second antenna** in response to the switching control signal, the switching control signal generated such that the switching occurs only in a guard period of a last time slot within **a sub-frame, the sub-frame includes a plurality of time slots**, each time slot includes a transmission period followed by a guard period, wherein the guard period of a last time slot is a guard period intervening between sub-frames." (Emphasis added.)

For a method claim to fall within a statutory category, the method claim must be tied to a particular machine or apparatus. See In re Bilski. As shown above, both Claims 5 and 18 recite several components that tie each of the claims to a particular machine or apparatus. Thus, both Claims 5 and 18 fall within a statutory category and are patentable under 35 U.S.C. §101.

Based on at least the foregoing arguments and amendments, withdrawal of the rejection of Claims 5 and 18 under §101 is respectfully requested.

Regarding the rejections of independent Claims 1, 5, 8, 18, 38 and 40 under 35 U.S.C. §103(a), the Examiner alleges that the claims are unpatentable over the APA in view of Heikkinen et al., and further in view of Lamoureux et al. Heikkinen et al. discloses a method for improving connection quality in a cellular radio system, and a base station; and, Lamoureux et al. discloses intelligent antenna sub-sector switching for time slotted systems.

Initially, it is respectfully submitted that the only argument that the Examiner responded to was the argument that Lamoureux teaches a guard time comes before each time slot. The Examiner responds that the APA teaches a guard time after each time slot and, in the rejections, cites FIG. 4 of the APA. FIG. 4 illustrates a time slot (not a frame) having a guard period at the end thereof. Thus, all that the APA discloses is a plurality of time slots each having a guard period at the end thereof. As will be explained below, this use of the APA does not cure the deficiencies of the rejections.

As a second initial matter, it is also respectfully submitted the Examiner's grouping of the claims in a single rejection is not proper under MPEP §707.07(d) Language to be Used in Rejecting Claims, which states, "A plurality of claims should never be grouped together in a common rejection, unless that rejection is equally applicable to all claims in the group." Each of the claims recite differing subject matter, therefore the rejection cannot be equally applicable to all of the claims in the group, and thus the claims should not be grouped together in a common rejection.

Each of Claims 1, 5, 8, 18, 38 and 40 recites either "wherein the non-transmission period of a last time slot is a non-transmission period intervening between sub-frames", "wherein the guard period of a last time slot is a guard period intervening between sub-frames", or "wherein...the guard period of a last time slot of a sub frame corresponds to a non-transmission period intervening between sub-frames."

In the claims of the present application, a switching control signal is generated such that **the switching occurs only in a non-transmission period (or guard period) of a last time slot within a sub-frame**, the sub-frame includes a plurality of time slots, each time slot includes a transmission period followed by a non-transmission period, the non-transmission period of a last time slot is a non-transmission period intervening between sub-frames. In the claims of the present application, the switching occurs ***only*** in a non-transmission period of a last time slot within a sub-frame, and the non-transmission period of a last time slot is a non-transmission period intervening between the sub-frames.

First, regarding the position of the non-transmission (or guard) period, the claims of the present application specifically recite that the non-transmission period of the last time slot intervenes between sub-frames.

Lamoureux specifically discloses that its guard times come before each time slot and thus a guard time associated with its last time slot comes before the last time slot. This is clearly

disclosed at col. 5, lines 38-40, and in FIG 4. Further, these sections clearly illustrate that the switching described occurs in the guard period 432 at the beginning of the frame (next frame after frame 401) before the first time slot 406. Any other reading of Lamoureux is improper.

The APA discloses that each time slot has a guard period at the end thereof. Therefore, a frame of the APA has multiple time slots and thus multiple guard periods. This is illustrated in FIG. 1.

Further, in Lamoureux the switching occurs multiple times in a frame. For example, as shown in FIG. 4, in frame 401, switching occurs six (6) times in each frame, at guard times 420, 422, 424, 426, 428 and 430. Switching six times throughout a frame is not and cannot be equated with switching ***only*** in a non-transmission period of a last time slot within a sub-frame. Rather than switching at the end of a frame, Lamoureux switches "prior to the start of the time slot" as disclosed at col. 6, lines 31-34.

Thus the combination of Lamoureux and the APA would only result in a switching that occurs multiple times in a frame. This is not and cannot be equated with a switching that occurs only in a non-transmission period (or guard period) of a last time slot within a sub-frame as recited in the claims of the present application.

Further, the Examiner states that Lamoureux discloses that the scanning radio continues to monitor each of antenna 302 and 304 during each of the time slots and selects which antenna should be coupled to a radio during a particular time slot, coupling the antenna to the radio during the guard time of the time slot (col. 5, lines 40-45). The switching of Lamoureux can occur in any guard time of a time slot, whereas the claims of the present application specifically recite that the switching that occurs only in a non-transmission period (or guard period) **of a last time slot within a sub-frame**.

Heikkinen does not cure the defects of Lamoureux and the APA. Thus, the combination

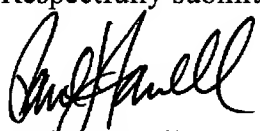
of the APA, Heikkinen and Lamoureux does not teach or disclose the limitations of the claims of the present application.

Based on at least the foregoing arguments and amendments, withdrawal of the rejection of Claims 1, 5, 8, 18 and 38 under §103(a) is respectfully requested.

Independent Claims 1, 5, 8, 18, 38 and 40 are believed to be in condition for allowance. Without conceding the patentability per se of dependent Claims 3, 7, 11, 12, 14, 15, 17, 21, 22, 24, 25, 27, 39 and 41, these are likewise believed to be allowable by virtue of their dependence on their respective amended independent claims. Accordingly, reconsideration and withdrawal of the rejections of dependent Claims 3, 7, 11, 12, 14, 15, 17, 21, 22, 24, 25, 27, 39 and 41 is respectfully requested.

Accordingly, all of the claims pending in the Application, namely, Claims 1, 3-5, 7, 8, 11, 12, 14, 15, 17, 18, 21, 22, 24, 25, 27 and 38-41, are believed to be in condition for allowance. Should the Examiner believe that a telephone conference or personal interview would facilitate resolution of any remaining matters, the Examiner may contact Applicants' attorney at the number given below.

Respectfully submitted,



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